

A researcher's tale: twenty plus years of inventorship in an academic world

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Editorial

The Bayh-Dole act, which allows universities to patent their intellectual property, is now over forty years old. In the beginning, the act affected few United States universities. However, for the last twenty to twenty-five years, more and more universities have embraced the act as a potential new funding stream for university operations. This has led to significant challenges to the traditional “publish or perish” mindset universities have used to measure the success of their faculty. What follows is a somewhat tongue-in-cheek look at this ongoing transformation.

Once upon a time, there was a kingdom—the kingdom of Inventia. The kingdom was divided between the normal folk and a group of Wizards and Knights commonly known as the Ivories, who cloistered together in great halls known as the Ivory Towers. Now it wasn't the two groups disliked each other. In fact, the common folk would send their offspring to the Towers for periods of time for training. Those who showed great promise would stay, but most would return to the normal world and go about their daily lives, spreading the knowledge and wisdom of the Ivories throughout the land and benefiting from the many discoveries the Towers provided.

Life in the Towers also has a certain routine, where the Ivories would have great thoughts and many theoretical discussions. However, Ivories were forbidden to profit from their thoughts and remain in the Tower, so any great changes to the land of Inventia required the normal to take these thoughts and dreams from the Towers and turn them into working things that improved the lot of the people as a whole. In exchange, the kingdom provided the Towers with the resources to survive and flourish.

Then, in the last half of the last century, 1980 to be exact, all changed as a new decree swept the land. The Bayh-Dole act. The act on its own seemed like such a good idea; let the Towers, and the Wizards and Knights profit directly from the ideas developed in the Towers, which would encourage them to be more practical in their thinking and therefore be better for the kingdom as a whole (1). However, in the beginning, the leaders of the Towers were resistant, considering profiting as tainting their work. It took several years for the Towers to understand that a more direct role in controlling ideas developed within the walls, meant a faster benefit to all. Further, the new system created chaos, as the leaders of the Towers, who had once encouraged cooperation between all Ivories, now jealously hoarded their subjects' ideas for fear another Tower might benefit from one of their projects, or worse, entice one of their Wizards or Knights to abandon their posts for profit at another Tower.

As often happens, in such periods of crisis, new rules and regulations began to spring up across the land. Rules that required the Wizards and Knights to consider the value of each project and if that value could be translated to a profit for the Tower. Each Tower also developed rules for sharing the wealth among the Ivories, rewarding the individuals who conceived the idea with promises of riches, encouraging them to interact with the normals, and even, gasp,

encouraging them to travel into the land of the normal to develop shops to sell their wares, but always reminding them that their first loyalty was to the Tower.

The first attempts were painful, as naive Wizards and their even more naive leaders, who were used to freely revealing what they knew, began interacting with the money changers in the normal world. People, the normals, call industrial sharks or simple sharks. The Tower leaders, and their Wizards and Knights were slow to learn sharks were not motivated by the same things that motivated the occupants of the Towers. The sharks looked at ideas, not for the joys of learning something new as much for their potential to create profit. Not necessarily a bad thing, but a totally new concept to all the Ivories in the Towers. At the same time, the leaders of the Towers were seduced by the concept that selling their ideas would provide more resources to build an even more robust Tower system as the King of Inventia told the Towers he could no longer send unlimited support to the Towers, if the Towers were not more supportive of the general population by providing more useful and practical ideas. One of the most challenging concepts for the Wizards and Knights to grasp was that the sharks did not understand the concept of gaining knowledge for knowledge's sake but instead were only interested in supplying resources that might return them profit. Knights and Wizards who interacted with the sharks had to learn such interactions limited their academic freedom to pursue any subject to only those subjects the sharks were interested in if they were going to provide the money. Or, as the sharks were so fond of saying, “he who supplies the gold makes the rules.”

As time passed, some Wizards and Knights became totally disenchanted with the new system and returned to the cloister halls of the Towers and their traditional ways of sharing knowledge. A group some leaders started referring to as dinosaurs, as without the King's former support, there would be no way for this path to be maintained. Others adjusted to the new system, learning to balance time and loyalties between the world of the Ivories and the world of the normals. Staying true to the Towers, these brave souls followed the rules, disclosing their best ideas to ye old office of intellectual property, so the leaders of the Towers could shop it to the normal

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world. This group of Wizards and Knights, once considered the Don Quixotes of the Ivory world, had to learn to adjust to those seeking profit from their ideas. Adjusting their mindsets between the traditional concept that their role was to seek knowledge for the sake (pure joy) of seeking knowledge with the reality that seeking knowledge had to be paid for and could only be paid for if ideas became useful technologies. Something that had truly happened for centuries, but now they were much more intimately involved in the final process. A role that required them to learn to “swim with the sharks.”

The Towers also adjusted;²⁻⁴ going from a culture that almost openly penalized the Don Quixotes; denying their elevation in the Tower social system and even encouraging their departure from the culture as a whole, to celebrating their accomplishments, acknowledging the importance of their role in Tower survival, and even developing systems to bridge the gap between the Towers and the normal world so they, the Quixotes, could become entrepreneurs of their own idea.

However, there is a cautionary warning to our tale. Some of the Ivories became seduced by the powers of profit. After proving their concepts within the Tower walls, they hid away their best ideas from the Towers and then abandoned their posts to seek profit on their own without acknowledging their former obligations. Others, including fellow Ivories, sharks, and other normals, openly stole ideas from the Towers and claimed them for their own. While the King's law frowned on such activities, the Tower leaders were often slow to defend the breaches, as such defenses were often seen as painting the Towers in a bad light in the normal world, whose support the Towers will always need to survive.

So, what is the moral of our story? Commercialization and the transfer of discovery to the outside world is an important aspect of any academic institution. We exist to improve society as a whole.

In this day and age, it also represents a significant focus of funding agencies. It also represents a potentially large new funding source for the institution and researchers who are willing to devote their careers to developing new technologies. It is important for institutions to develop workable rules which allow researchers to engage in the “real world” but which require the same rigorous standards we have always demanded from our scientific community;⁵ including the willingness of the institution to punish those who break the rules and defend those who remain ethical and loyal to “the Tower.”

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